[0089] The electronic control module 300 calculates the optimal throttle opening for effectively steering the watercraft based on the input signals from the steering sensor 310 and the speed sensor (pitot tube) 320. A throttle position sensor (TPS) 330 measures the actual position of the throttle, which is essentially a measurement of how much the throttle is open. The electronic control module generates an output signal that activates a throttle actuator only when the measured throttle setting is less than the desired throttle setting for a given speed and steer angle. In other words, the output signal is only generated if the signal from the manual throttle control corresponds to a throttle setting that will produce a thrust less than what is needed to steer the watercraft. The throttle actuator opens and closes the throttle so as to optimize the thrust for steering. In the preferred embodiment, the control module will increase the opening of the throttle as the watercraft speed increases in a non-linear fashion. For the purposes of illustration only, the throttle may be set so that the engine idles at 2000 RPM for a speed of zero knots. For a speed of 10 knots, the throttle may be opened so that the engine runs at 2600 RPM. For a speed of 20 knots, the throttle may be opened to produce an engine speed of 2900 RPM. The optimal throttle setting can be determined empirically by measuring the thrust needed to effectively steer the watercraft and by correlating that thrust to the impeller's speed of rotation, the engine RPM, and the throttle setting. of course, the thrust needed to effectively steer the watercraft depends on the size and type of watercraft.

See the attached Appendix for the changes made to effect the above paragraphs.

IN THE CLAIMS:

Please cancel claims 17-32 and 58-66 without prejudice or disclaimer.

Please add the following new claims 76-98:

76. A watercraft, comprising:

a hull;

a steering assembly supported by the hull;

an engine mounted within the hull;

a manually actuated throttle control operatively connected to the engine for manually changing engine speed;

a jet propulsion assembly supported by the hull having an inlet that draws in water and an outlet which expels water, wherein the jet propulsion assembly is operatively connected to the engine so that the engine drives the jet propulsion assembly to generate thrust and expel a pressurized stream of water that propels the watercraft;

a steering nozzle disposed at the outlet of the jet propulsion assembly and operatively connected to the steering assembly, wherein the steering assembly transmits steering signals to the steering nozzle to direct the pressurized stream of water in a desired direction to steer the watercraft; and

an actuator operatively connected to the engine and the steering assembly that controls engine speed so that a minimum thrust is generated by the jet propulsion assembly when the steering assembly is turned beyond an angular threshold to effectively steer the watercraft.

77. The watercraft of claim 76, wherein the actuator controls the engine speed so that the jet propulsion unit generates at least a minimum thrust when the steering assembly is turned beyond on angular threshold and when the manually actuated throttle control is at idle.

78. The watercraft of claim 76, wherein the watercraft is a personal watercraft.

79. The watercraft of claim 78, wherein the personal watercraft has a straddle seat.

80. The watercraft of claim 76, wherein the jet propulsion assembly includes two jet propulsion devices.

81. The watercraft of claim 76, wherein the watercraft is a sport boat.

82. The watercraft of claim 76, wherein the engine has a carburetor and a throttle, wherein the actuator controls the throttle to control engine speed.

83. The watercraft of claim 76, wherein the engine is fuel injected.

84. The watercraft of claim 76, wherein the actuator controls the fuel and air mixture in the engine.

85. The watercraft of claim 76, wherein the actuator comprises an electronic control system.

86. The watercraft of claim 85, wherein the electronic control system comprises a processor, a steering angle sensor and a speed sensor.

87. The watercraft of claim 86, wherein the electronic control system receives input from the steering angle sensor and the speed sensor and generates an output that instructs the engine to increase speed when the steering angle sensor input indicates steering beyond a threshold.

88. 63 A personal watercraft comprising:

a hull;

a deck supported by the hull;

a straddle seat mounted on the deck;

a helm mounted on the deck, the helm including a manual throttle control and a steering element;

an engine supported in the hull;

a jet propulsion assembly supported by the hull and operatively connected to the engine to generate a pressurized stream of water that propels the watercraft;

a steering nozzle connected to the jet propulsion unit that selectively directs the pressurized stream of water to effect steering; and

an engine speed controller operatively connected to the engine and the steering element to increase engine speed upon a steering signal generated by turning the steering element from a first position to a second position.

89. 104 The personal watercraft of claim 88, 63 wherein the engine speed controller increases engine speed upon the steering signal when the manual throttle control is at idle.

90. 105 The personal watercraft of claim 88, 63 wherein the engine is an internal combustion engine with a throttle.

91. 106 The personal watercraft of claim 90, 16 wherein the engine speed controller is an actuator comprising a cable coupled to the throttle to open the throttle based on the steering signal.

92. 107 The personal watercraft of claim 88, 63 wherein the engine is an internal combustion engine with a fuel injector.

93. 108 The personal watercraft of claim 92, 107 wherein the engine speed controller comprises an electronic control system.

94. 109 The personal watercraft of claim 93, 108 wherein the electronic control system comprises a steering sensor, a speed sensor, and a processor.

95. 110 The personal watercraft of claim 94, 109 wherein the electronic control system generates an increase engine speed signal based on signals from the steering sensor and the speed sensor.

96. 111 The personal watercraft of claim 88, 63 wherein the engine speed controller comprises an electronic control system.

97. 97. 112 The personal watercraft of claim 96, 111 wherein the electronic control system comprises a steering sensor, a speed sensor, and a processor, and wherein the electronic

control system generates an increase engine speed signal based on signals from the steering sensor and the speed sensor.

98. The personal watercraft of claim 88, wherein the engine speed controller generates an increase engine speed signal when the engine speed falls below a threshold.